

153976

Wednesday, November 30, 2016 4:01:51 PM

N900040100

Setup Start *NS1*

Stop ***NS2***

6

Start Date: 11/28/2016 **Start Qty:** 6.00

6

Customer:

Run Start *NR1*

Tooling: _____ **Date:** _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Draw Nbr	Revision Nbr
D4148	E

0.00

0.16

Memo

Cut as per dwg D4148

Prog Rev: E

Dwg Rev: E

OPEN HOLES TO SIZE AS PER DWG

Deburr as required

QC2- Inspect parts off machine FAI/FAIB

0.00

0.01

QC

Memo

Quality Control

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : ☐							

Work Order ID 153976

Wednesday, November 30, 2016 4:01:51 PM

153976

Page 2

Item ID: D4148-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Crosstube Lug Plate, Fwd

Start Date: 11/28/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 11/30/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.02

Quality Control

DAS
38
9-89
JAN 16 2017

150

Identify as per dwg & Stock Location: 51085

0.00

150

Packaging

Memo

0.01

Packaging

JAN 17 2017
DAS
6
9-89

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.10

Quality Control

17/01/18
MF
17-1-17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Wednesday, November 30, 2016 4:01:50 PM

Page 1

Work Order ID: 153976

153976

Parent Item: D4148-1

D4148-1

Parent Item Name: Crosstube Lug Plate, Fwd

Start Date: 11/28/2016

Required Date: 11/30/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC
IPP Rev:B 10.10.29 as per revC DD verf:EC
11.03.02 AS PER DWG REV.D DD VERF:EC

IPP REV:C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M304S11GA

Purchased

No

100

sf

36.3800

0.3607

2.278105

M304S11GA

304/316 0.125 Sheet

Dec 16/12/22

Location

Loc Qty

Loc Code

MAT020

36.37998

M129545

2.21998

M129972

0.5

M134284

2.79

M135355

30.87

1.6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

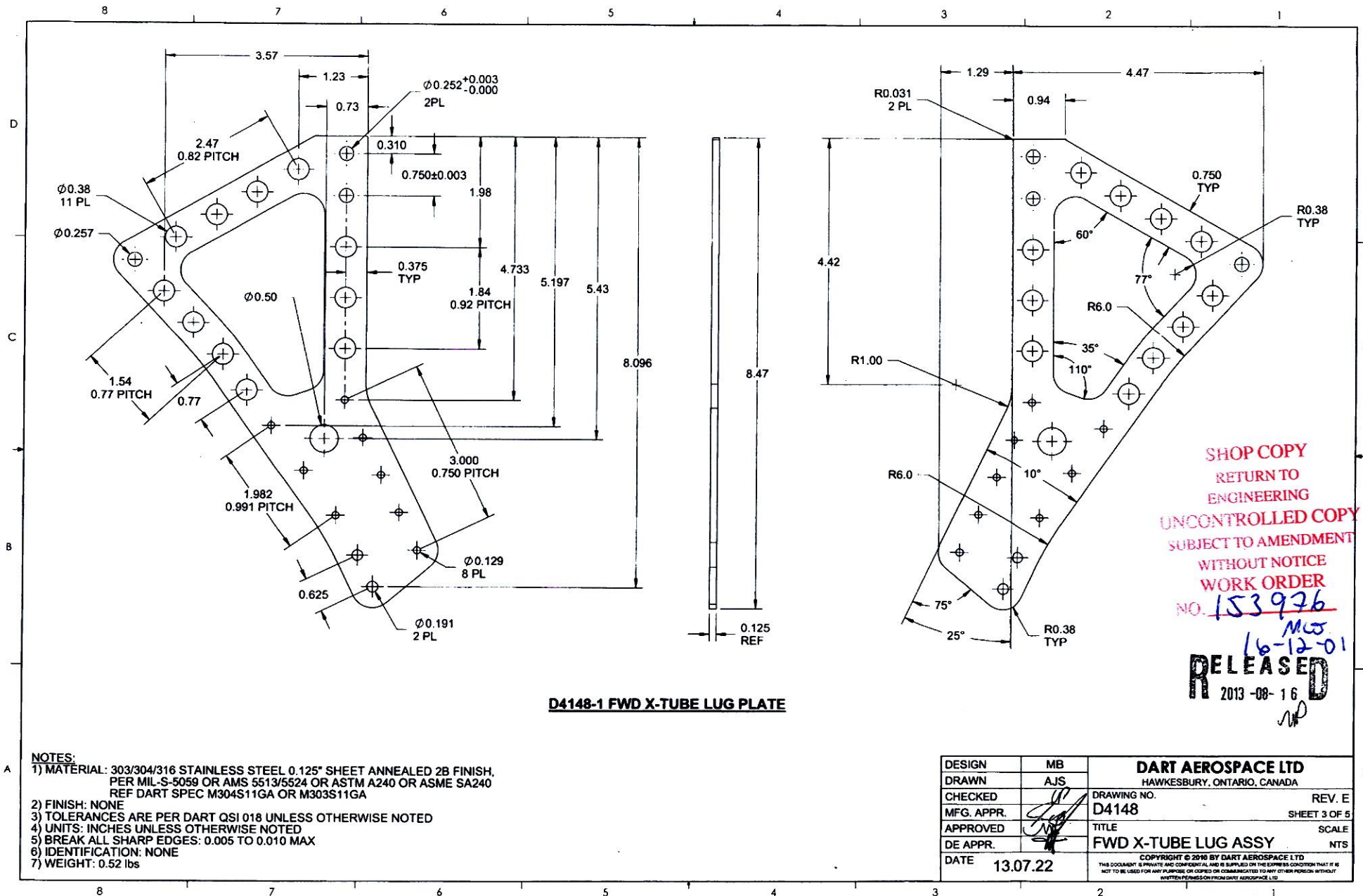
DART AEROSPACE LTD		Work Order: 153976
Description: Fwd Crosstube Lug Plate		Part Number: D4148-1
Inspection Dwg: D4148	Rev: E	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	Ø.128	/		V-D-01	
Ø0.191	+0.005/-0.001	Ø.191	/		V-D-02	
Ø0.38	+0.006/-0.001	Ø.379	/		Tape	
Ø0.257	+0.006/-0.001	Ø.256	/			
Ø0.50	+0.008/-0.001	Ø.499	/			
0.94	+/-0.030	.94	/			
4.47	+/-0.030	4.47	/			
0.750	+/-0.010	.752	/			
8.47	+/-0.030	8.47	/			
8.096	+/-0.010	8.099	/			
5.43	+/-0.030	5.43	/			
5.197	+/-0.010	5.199	/			
4.733	+/-0.010	4.736	/			
0.310	+/-0.010	.311	/			
0.750	+/-0.010	.760	/			
0.375	+/-0.010	.379	/			
1.84	+/-0.030	1.84	/			
0.92	+/-0.030	.92	/			
3.000	+/-0.010	3.003	/			
0.750	+/-0.010	.752	/			
0.625	+/-0.010	.627	/			
1.982	+/-0.010	1.984	/			
0.991	+/-0.010	.993	/			
0.77	+/-0.030	.77	/			
1.54	+/-0.030	1.54	/			
2.47	+/-0.030	2.47	/			
0.82	+/-0.030	.82	/			
3.57	+/-0.030	3.57	/			
1.23	+/-0.030	1.23	/			
0.73	+/-0.030	.73	/			
0.125	+/-0.010	.116	/			
Ø0.252	+0.003/-0.000	Ø.252	/			

Measured by: DC	Audited by: DAS 38	Preliminary Approval:
Date: 12/12/12	Date: JAN 16 2017	Date:

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	10.10.08	Dwg Rev updated	KJ	
C	10.11.05	Dimensions updated per Dwg Rev C	KJ	
D	11.03.08	Dwg Rev updated	KJ	
E	12.02.01	Dimensions updated per Dwg Rev D	KJ	
F	13.11.26	Dwg Rev updated	KJ	



D4148-1 FWD X-TUBE LUG PLATE

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153976

16-12-01
RELEASED
2013-08-16

- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S11GA OR M303S11GA
 - 2) FINISH: NONE
 - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.52 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D4148	REV. E
MFG. APPR.			SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
DATE	13.07.22	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	